DAFTAR PUSTAKA

[1] P. Madona, R. I. B. A, and M. M. Zain, "Pqrst wave detection on ecg signals," *Gaceta Sanitaria*, vol. 35, no. S2, pp. S364–S369, 2021.

[2] R. A. Nishimura and B. A. Borlaug, "Diastology for the clinician," *J Cardiol*, vol. 73, no. 6, pp. 445–452, 2019.

[3] National Heart, Lung, and Blood Institute, "Arrhythmias: Diagnosis," [Online]. Available: https://www.nhlbi.nih.gov/health/arrhythmias/diagnosis, 2024.

[4] "Heart anatomy," Cleveland Clinic. [Online]. Available: https://my.clevelandclinic. org/health/body/21704-heart, Cleveland Clinic, 2024, [Accessed: Feb. 19, 2024].

[5] "Heart anatomy," [Online]. Available: https://www.texasheart.org/heart-health/ heart-information-center/topics/heart-anatomy/, Texas Heart Institute, 2024, [Accessed: Feb. 19, 2024].

[6] "Basic anatomy of the human heart," [Online]. Available: https://www.cardofmich. com/anatomy-human-heart-fun-facts/, Cardiology Associates of Michigan, Oct. 2019, [Accessed: Feb. 19, 2024].

[7] Healthline, "Diastole vs. systole: What's the difference?" [Online]. Available: https://www.healthline.com/health/diastole-vs-systole#_noHeaderPrefixedContent.

[8] J. Koschate, U. Drescher, A. Werner, L. Thieschäfer, and U. Hoffmann, "Cardiova-scular regulation: Associations between exercise and head-up tilt," *Can J Physiol Pharmacol*, vol. 97, no. 8, pp. 738–745, 2019.

[9] Y. Sattar and L. Chhabra, *Electrocardiogram*. National Library of Medicine, Juni 2023.

[10] B. A. Setiawan, "7 anonimasi sinyal ekg untuk nodus frekuensi rendah dengan ang-ka nol dan merekontruksi sinyal ekg frekuensi tinggi untuk proses anonimasi," Mas-ter's thesis, Institut Bisnis dan Informatika Surabaya, 2018.

[11] *AD8232: Single-Lead, Heart Rate Monitor Front End*, Analog Devices, 2020. [Online]. Available: https://www.analog.com/media/en/technical-documentation/ data-sheets/AD8232.pdf

[12] Z. Zhang, Y. Liu, J. Ma, and G. Fu, "Ecg classification using supervised machine learning," medical biological engineering computing," *Medical Biological Engineering Computing*, vol. 58, no. 11, pp. 2565–2576, 2020.

[13] R. Vincent, "From a laboratory to the wearables: a review on history and evolution of electrocardiogram," *IBEROAMERICAN JOURNAL OF MEDICINE*, 2022.

[14] N. Rafie, A. H. Kashou, and P. A.Noseworthy, "Ecg interpretation: Clinical rele-vance, challenges, and advances," *Hearts, MDPI*, 2021.

[15] P. Madona and R. Fadila, "Akuisisi sinyal electrocardiography (ecg) berbasis ardu-ino," *Jurnal ELEMENTER (Elektro dan Mesin Terapan) Politeknik Caltex Riau*, 2023.

[16] A. S. Prasad and Kavanashree, "Ecg monitoring system using ad8232 sensor," *Proceedings of the Fourth International Conference on Communication and Electronics Systems*, 2019.

[17] S. R. Dasarapalli, R. K. Panneerselvam, S. Annavarapu, and K. R. Gopireddy, "Three-lead ecg and heartrate variability using ad8232," *4th International Conference on Computing Communication and Networking Technologies (ICCCNT*, 2023.

[18] A. B. A. Subianto, A. Bhawiyuga, and D. P. Kartikasari, "Implementasi filtrasi sinyal electrocardiogram (ecg) menggunakan metode butterworth pada android dengan teknologi edge computing," *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 7, no. 1, pp. 451–457, January 2023.

[19] B. Salsekar and D. A. K. Wadhwani, "Fitering of ecg signal using butterworth filter and its feature extraction," *International Journal of Engineering Science and Technology (IJEST)*, vol. 4, no. 04, April 2012.

[20] S. K. Mohapatra and M. N. Mohanty, "Analysis of resampling method for arrhythmia classification using random forest classifier with selected feature," *International Conference on Data Science and Business Analytics*, 2018.

[21] E. Alickovic and A. Subasi, "Medical decision support system for diagnosis of heart arrhythmia using dwt and random forests classifier," *Journal of Medical Systems*, 2016.

[22] A. Saxton, R. Chaudhry, and B. Manna, *Anatomy, Thorax, Heart Right Coronary Arteries*. National Library of Medicine, January 2024.

[23] E. J. da S Luz, W. R. Schwartz, G. Cámara-Chávez, and D. Menotti, "Ecg-based heartbeat classification for arrhythmia detection: A survey," *Computer Methods and Programs in Biomedicine*, 2015.

[24] M. S. Spach and J. M. Kootsey, "The nature of electrical propagation in cardiac muscle," *American Journal of Physiology – Heart and Circulatory Physiology*, vol. 244, pp. 3–22, 1983.

[25] R. A. Bellfield, S. Ortega-Martorell, G. Y. Lip, D. Oxborough, and I. Olier, "Impact of ecg data format on the performance of machine learning models for the prediction of myocardial infarction," *Journal of Electrocardiology*, vol. 84, pp. 17–26, May-June 2024.

[26] G. Degheim, A. Berry, and M. Zughaib, "False activation of the cardiac catheterization laboratory: The price to pay for shorter treatment delay," *JRSM Cardiovasc Dis*, 2019.

[27] A. L. Goldberger, "Basic principles of electrocardiographic interpretation," *UptoDate*, 2024.

[28] P. A. Friedman, "The electrocardiogram at 100 years: History and future," *circulation*, february 2024.

[29] "Atrial fibrillation: Causes and risk factors," National Heart Lung Blood Institute, 2022. [Online]. Available: https://www.nhlbi.nih.gov/health/atrial-fibrillation/causes

[30] Y. Hafeez and S. A. Grossman, *Sinus Bradycardia*. National Library of Medicine, August 7 2023. [Online]. Available: https://www.ncbi.nlm.nih.gov/books/NBK493185/

[31] T. J. Wang, "Atrial fibrillation and the risk of heart failure," *Journal of the American College of Cardiology*, vol. 48, no. 3, pp. 293–299, 2006.

[32] E. J. Benjamin, "Impact of atrial fibrillation on the risk of stroke: The framingham heart study," *Circulation*, vol. 93, no. 9, pp. 1012–1016, 1996.

[33] J. Gatzoulis, "Mechanisms of sudden cardiac death," *Journal of Nuclear Cardiology*, vol. 17, no. 4, pp. 123–130, 2020.

[34] P. D. et al., "Prognostic value of programmed ventricular stimulation for sudden death in selected high-risk patients with structural heart disease," *International Journal of Cardiology*, vol. 176, p. 1449–1451, 2014.

[35] Y. Ansari, O. Mourad, K. Qaraqe, and E. Serpedin, "Deep learning for ecg arrhythmia detection and classification: an overview of progress for period 2017–2023," *Frontiers in Physiology*, 2023.

[36] Y. D. Daydulo, B. L. Thamineni, and A. A. Dawud, "Cardiac arrhythmia detection using deep learning approach and time frequency representation of ecg signals," *BMC Medical Informatics and Decision Making*, no. 232, 2023.

[37] L. X. Q. Huang, J. W. and L. X. Wang, "Evaluation of universal electrodes for ecg measurements in outpatient care," *Journal of Electrocardiography*, vol. 44, 2020.

[38] M. R. A. Aroor, R. and N. Singh, "Performance and reliability of various types of electrodes in clinical ecg measurements," *Journal of Clinical Electrocardiology*, vol. 49, 2018.

[39] S. A. S. Medeiros, L. D. and A. L. Ferreira, "Clamp electrodes in research ecg: Practical considerations and performance," *Journal of Biomedical Engineering*, vol. 31, 2019.

[40] A. Documentation, *What is Arduino?*, Arduino, 2024. [Online]. Available: https://docs.arduino.cc/learn/starting-guide/whats-arduino/

[41] B. J. Jansen, "The graphical user interface," *SIGCHI Bulletin*, vol. 30, no. 2, 1998.

[42] W. L. Martinez, "Graphical user interfaces," *WIREs Computational Statistics*, vol. 3, no. 2, pp. 119–133, 2011.

[43] J. Doe, A. Roe, and B. Smith, "Python for embedded systems: Usage of pyserial for serial communication," *Journal of Embedded Systems*, vol. 15, no. 3, pp. 123–130, 2023.

[44] A. Smith and C. Brown, "Serial communication in automation systems: Rs-232 and python implementations," *IEEE Transactions on Industrial Electronics*, vol. 68, no. 5, pp. 4521–4530, 2022.

[45] N. R. dan Rajesh Mehra, "Analysis of butterworth and chebyshev filters for ecg denoising using wavelets," *IOSR Journal of Electronics and Communication Engineering*, vol. 6, pp. 37–44, 2013.

[46] L. Briman, "Random forest," *Machine Learning, Sprienger*, 2001.

[47] N. Rastogi and R. Mehra, "Analysis of butterworth and chebyshev filters for ecg denoising using wavelets," *IOSR Journal of Electronics and Communication Engineering*, 2013.

[48] P. de Chazal, M. O'Dwyer, and R. Reilly, "Automatic classification of heartbeats using ecg morphology and heartbeat interval features," *IEEE Transactions on Biomedical Engineering*, 2004.

[49] C. T. Chung, S. Lee, E. King, T. Liu, A. A. Armoundas, G. Bazoukis, and G. Tse, "Clinical significance, challenges and limitations in using artificial intelligence for electrocardiography-based diagnosis," *International Journal of Arrhythmia volume*, 2022.